



Product Evaluation

WIN2052 | 1215

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: WIN-2052

Effective Date: December 1, 2015

Re-evaluation Date: December 2018

Product Name: HR-5510 Vinyl Horizontal Rolling Windows, Fin-Mounted and Replacement, Single and Double Operable Sashes, Impact Resistant

Manufacturer: PGT Industries
1070 Technology Drive
North Venice, FL 34275
(941) 486-0100 (Ext. 21142)

General Description:

System	Description	Label Rating	Design Pressure Rating
1	HR-5510 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (XO)	LC PG65 (75 X 63) HS Missile Level D	+65 / -70 psf
2	HR-5510 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (XO)	LC PG65 (75 X 63) HS Missile Level D	+65 / -70 psf

General Description (continued):

System	Description	Label Rating	Design Pressure Rating
3	HR-5510 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of one 1/8" annealed glass section on the exterior; one 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (XO)	LC-PG60 75 X 63-HS Missile Level D	+60 / -60 psf
4	HR-5510 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of one 1/8" annealed glass section on the exterior; one 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (XO)	LC-PG60 75 X 63-HS Missile Level D	+60 / -60 psf
5	HR-5510 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R3 aluminum reinforcement (XO)	LC-PG50 75 X 63-HS Missile Level D	+50 / -50 psf
6	HR-5410 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R3 aluminum reinforcement (XO)	LC-PG50 75 X 63-HS Missile Level D	+50 / -50 psf
7	HR-5410 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (XO)	LC-PG50 75 X 72-HS Missile Level D	+50 / -50 psf
8	HR-5410 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (XO)	LC-PG50 75 X 72-HS Missile Level D	+50 / -50 psf
9	HR-5510 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of one 3/16" annealed or tempered glass section on the exterior; one 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (XOX)	LC-PG65 120 X 63-HS Missile Level D	+65 / -70 psf

General Description (continued):

System	Description	Label Rating	Design Pressure Rating
10	HR-5510 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of one 3/16" annealed or tempered glass section on the exterior; one 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (X0X)	LC-PG65 120 X 63-HS Missile Level D	+65 / -70 psf
11	HR-5510 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of one 3/16" annealed glass section on the exterior; one 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (X0X)	LC-PG65 120 X 63-HS Missile Level D	+65 / -65 psf
12	HR-5510 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of one 3/16" annealed glass section on the exterior; one 5/16" laminated glass section on the interior; and R4 aluminum reinforcement (X0X)	LC-PG65 120 X 63-HS Missile Level D	+65 / -65 psf
13	HR-5510 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R3 aluminum reinforcement (X0X)	LC-PG50 120 X 63-HS Missile Level D	+50 / -50 psf
14	HR-5510 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of an annealed or tempered glass section on the exterior and a 5/16" laminated glass section on the interior; and R3 aluminum reinforcement (X0X)	LC-PG50 120 X 63-HS Missile Level D	+50 / -50 psf
15	HR-5510 Vinyl Horizontal Rolling Windows, fin-mounted, with 7/8" nominal insulated glass lites composed of one 1/8" annealed glass section on the exterior and a 5/16" laminated glass section on the interior; and R3 aluminum reinforcement (X0X)	LC-PG45 120 X 63-HS Missile Level D	+45 / -45 psf
16	HR-5510 Vinyl Horizontal Rolling Windows, replacement, with 7/8" nominal insulated glass lites composed of one 1/8" annealed glass section on the exterior and a 5/16" laminated glass section on the interior; and R3 aluminum reinforcement (X0X)	LC-PG45 120 X 63-HS Missile Level D	+45 / -45 psf

Product Dimensions (1/2- 1/2 and 1/4 – 1/2 – 1/4 Configurations):

System	Overall Size	Fixed Daylight Opening Size	Operable Daylight Opening Size
1	77-3/4" x 65-3/4"	33-1/4" x 58"	33-1/4" x 55-3/4"
2	75" x 63"	34-5/8" x 59-1/4"	33-1/16" x 55-9/16"
3	77-3/4" x 65-3/4"	33-1/4" x 58"	33-1/4" x 55-3/4"
4	75" x 63"	34-5/8" x 59-1/4"	33-1/16" x 55-9/16"
5	77-3/4" x 65-3/4"	33-1/4" x 58"	33-1/4" x 55-3/4"
6	75" x 63"	33-1/4" x 58"	33-1/4" x 55-3/4"
7	77-3/4" x 74-3/4"	33-1/4" x 67"	33-1/4" x 64-3/4"
8	75" x 72"	33-1/4" x 67"	33-1/4" x 64-3/4"
9	122-3/4" x 65-3/4"	54-5/8" x 58"	26-5/8" x 55-3/4"
10	120" x 63"	54-5/8" x 58"	26-5/8" x 55-9/16"
11	122-3/4" x 65-3/4"	54-5/8" x 58"	26-5/8" x 55-3/4"
12	120" x 63"	54-5/8" x 58"	26-5/8" x 55-9/16"
13	122-3/4" x 65-3/4"	54-5/8" x 58"	26-5/8" x 55-3/4"
14	120" x 63"	54-5/8" x 58"	26-3/4" x 55-3/4"
15	122-3/4" x 65-3/4"	54-5/8" x 58"	26-5/8" x 55-3/4"
16	120" x 63"	54-5/8" x 58"	26-3/4" x 55-3/4"

Product Identification (Certification Label on Window):

System		
1 - 16	Certification Agency	Keystone Certifications, Inc.
	Manufacturer's Name or Code Name	System 1, 2: CAR # 190-1047, CAR # 190-291 System 3, 4: CAR # 190-1074, CAR # 190-290 System 5, 6: CAR # 190-1048, CAR # 190-292 System 7, 8: CAR # 190-1046, CAR # 190-289 System 9, 10: CAR # 190-1052, CAR # 190-296 System 11, 12: CAR # 190-1051, CAR # 190-295 System 13, 14: CAR # 190-1054, CAR # 190-298 System 15, 16: CAR # 190-1053, CAR # 190-297
	Product Name	Systems 1-8: Model HR 5510 PVC Impact Horizontal Slider XO Systems 9-16: Model HR 5510 PVC 1/4 – 1/2 – 1/4 Impact Horizontal Slider XO
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-11 ASTM E 1886-05/ASTM E 1996-12 Missile Level D

Impact Resistance:

System	Impact Resistant	Requirement
1 - 16	Yes	These products satisfy TDI's criteria for protection from windborne debris in the Inland I and Seaward zone. Install the assemblies at a height on the structure that does not exceed the assemblies' design pressure rating.

Installation:

System		
1, 3, 5, 7, 9, 11, 13, and 15 (FIN)	Type of Installation	Wood Frame
	Wall Framing	Southern Pine (SPG \geq 0.55) Dimension lumber
	Fasteners	Minimum 8d Common Ring-Shank Nails (2-1/2" long, 0.131" diameter)
	Fastener Penetration	Minimum 1-7/16" into the wall framing
2, 4, 6, 8, 10, 12, 14, and 16 (FINLESS)	Type of Installation	Wood Frame
	Wall Framing	Southern Pine (SPG \geq 0.55) Dimension lumber
	Fasteners	Minimum No. 10 x 1-3/4" Phillips Head, 18-8 or 410 Stainless Steel Sheet Metal Screws or Minimum No. 12 x 1-3/4" Phillips Head, 18-8 or 410 Stainless Steel Sheet Metal Screws
	Fastener Penetration	Minimum 1-1/2" into the wall framing

Supplemental Installation Instructions:

- **Design Drawing:** Install the windows in accordance with Drawing No. TDI-HR5510.1, titled "Vinyl HR Window TDI (Impact-Resistant)," sheets 1 through 4 of 4, dated March 17, 2015, signed and sealed by A. Lynn Miller, P.E., on March 17, 2015. This evaluation report refers to the stated drawings as the approved drawings.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.